



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/774,755	02/09/2004	James E. King	5681-85400	6135
58467	7590	06/27/2008	EXAMINER	
MHKKG/SUN P.O. BOX 398 AUSTIN, TX 78767			HUSSAIN, TAUQIR	
			ART UNIT	PAPER NUMBER
			2152	
			MAIL DATE	
			06/27/2008	DELIVERY MODE
				PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/774,755	KING ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	TAUQIR HUSSAIN	2152	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 09 February 2004.

2a) This action is FINAL.                    2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-86 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-86 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____ .
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)	5) <input type="checkbox"/> Notice of Informal Patent Application
Paper No(s)/Mail Date <u>06/13/2005</u> .	6) <input type="checkbox"/> Other: _____ .

## **DETAILED ACTION**

1. This office action is in response to amendment /reconsideration filed on 02/09/2004, the amendment/reconsideration has been considered. Claims 1-86 are pending for examination, the rejection cited as stated below.

### ***Information Disclosure Statement***

2. The listing of references in the specification on pages 10 and 11 are not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

### ***Claim Objections***

3. Claim 86 is objected to because of the following informalities: Claim 86 recite "the combine dswitch" which examiner will interpret as "the combined switch" for examining purposes. Appropriate correction is required.

### ***Specification***

4. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d) (1) and MPEP § 608.01(o). Correction of the following is required: the following terms has an antecedent basis as there is no support found in the specification.

"removably receiving" (claims 16, 18, 34, 36, 51, 53, 64, 66, 82, 84),  
"Configuration master" (claims 5, 6),

“cryptographic operation” (claim 42, 43),  
“production time” (claims 57),  
“reversement action” (claim 73).

***Drawings***

5. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “wherein the service processor portion is further operable automatically synchronize management information with the service processor via the data interface in accordance with the master/slave relationship” in **claim 1 and 20**, “wherein the switch and service processor portions are each operable to communicate with the external management entity to obtain a unique address within a computing environment into which the modular computer system is connected” in **claim 21 and 38**, “wherein the switch and service processor are each operable to create a unique identifier using data unique to the respective processor” or wherein the service processor is operable to supply its unique identifier to the switch for use by the switch in identifying itself in precedence to the switch's own unique identifier” in claim **56 and 68**, “wherein fault management unit is operable to intercept any fault messages generated by the switch portion and the service processor portion and to perform rationalization processing on those messages to determine whether to forward a given message to the external management entity” in claim **69 and 86** must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 1,6, 12-15, 21, 30-33, 39-40, 42, 47-50, 56, 58, 60-63, 69, 78-81 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 recite "service processor operable to operate" or "service

processor further operable automatically", phrase renders the indefiniteness in its entirety as it is not certain whether it will operate or it will not operate. Appropriate correction is required.

8. Claims 16, 18, 34, 36, 51, 53, 64, 66, 82, 84 recite "removably received therein" examiner needs further explanation to the phrase "removably received therein".
9. Claims 14, 32, 47, 56, 58, 68 and 81 recite "operable to supply its unique identifier" or "identifying itself" renders the claim indefinite.

***Claim Rejections - 35 USC § 102***

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

11. Claims 1-3, 20-22, 30 and 38 are rejected under 35 U.S.C. 102(e) as being anticipated by Schwartz et al. (Pub. No.: US 2005/0071625 A1), hereinafter "Schwartz".
12. As to claims 1, 20, Schwartz discloses, combined switch and service processor module for a modular computer system, comprising:

a switch portion (Fig.2, element-222);  
a service processor portion (Fig.2, element-214);

a data interface for communicating management information to other parts of the modular computer system (Fig.2, element-226 is connecting the two entity 200 and 202 for data communication between the entities);

wherein the service processor portion is operable to operate in master/slave relationship with a service processor portion of a further combined switch and service processor module of the modular computer system ([0018], where four RXE-216 are coupled to SMM-212 which is controlled via master scalability chipset 210 and since RXE-216 is remote and therefore is equivalent to slave entity); and

wherein the service processor portion is further operable automatically to synchronize management information with the service processor portion of the further combined switch and service processor via the data interface in accordance with the master/slave relationship (Fig.3, element-312, [0019], where registering node with scalability manager module is synchronizing master/slave relationship).

13. As to claims 21 and 38, Schwartz discloses, a combined switch and service processor module for a modular computer system, comprising:

a switch portion (Fig.2, element-222);

a service processor portion (Fig.2, element-214);

a data interface for communicating management information to other parts of the modular computer system (Fig.2, element-226 is connecting the two entity 200 and 202 for data communication between the entities);

wherein the switch and service processor portions are each operable to communicate with the external management entity to obtain a unique address within a

computing environment into which the modular computer system is connected ([0022], where external management entity RXE acquires a naming/identification, IP address for the service process in the node, etc).

14. As to claim 2, Schwartz discloses, the combined switch and service processor module, further comprising an external data interface for communication with an external management entity (Fig.2, element-218 is equivalent to external communication interface with external management entity-220).

15. As to claim 3, Schwartz discloses, wherein only the service processor portion of the combined switch and service processor module configured as master communicates with the external management entity ([0023], where SMM communicates with RXE which is equivalent to external management entity, whereas SMM contains master scalability chipset and a service processor).

16. As to claim 22, Schwartz discloses, wherein the unique address is an Internet Protocol address ([0022], where IP address is an internet protocol address).

17. As to claim 30, carry similar limitations as claim 1 above and therefore is rejected under for same rationale.

***Claim Rejections - 35 USC § 103***

18. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

Art Unit: 2152

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

19.

20. Claims 4-5, 9-13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schwartz as applied to parent claim 1 above in view of Trinon et al. (Pub. No.: US 2005/0283445 A1), hereinafter “Trinon”.

21. As to claim 4, Schwartz discloses the invention substantially as in parent claim 1 above. Schwartz however is silent on disclosing explicitly, wherein the switch portion operates in a peer to peer relationship with a switch portion of the further combined switch and service processor.

Trinon however discloses wherein the switch portion operates in a peer to peer relationship with a switch portion of the further combined switch and service processor (Trinon, Fig.9, [0015], where peer to peer relation is disclosed in the same analogous art of invention).

Therefore it would have been obvious to one of ordinary skilled in the art at the time the invention was made to combine the teachings of Schwartz with the teachings of Trinon in order to provide an improved method and architecture for measuring and reporting availability and performance of Business Services. The present invention has features which enable the storage and the maintenance of business object definitions in an autonomous peer-to-peer engine.

22. As to claim 5, Schwartz and Trinon discloses the invention substantially as in parent claim 4 above, including, wherein the switch portion of one combined switch and

service processor module is configured as a configuration master for the peer to peer relationship (Schwartz, [0018], where master scalability is disclosed).

23. As to claim 9, Schwartz and Trinon discloses the invention substantially as in parent claim 1 above, including, wherein the switch portion and service processor portion are implemented by separate hardware within the module (Schwartz, Fig.2, element-222 and 214, which can be separate hardware with the module).

24. As to claim 10, is rejected for same rationale as claim 9 above, additionally hardware arrangement is merely a design choice.

25. As to claim 11, the Schwartz and Trinon discloses the invention substantially as in parent claim 1 above, including, wherein software controlling the functionality of the switch portion and the service processor portion runs on a common operating system (Schwartz, [0017], is a complete setup with the combination of software and operation system).

26. As to claim 12, Schwartz and Trinon discloses the invention substantially as in parent claim 1 above, including,, wherein the switch and service processor portions are each operable to communicate with the external management entity to obtain a unique address within a computing environment into which the modular computer system is connected (Schwartz, Fig.2, element-218, 220, where SMM communicates with remote manager via network 218).

27. As to claim 13 Schwartz and Trinon discloses the invention substantially as in parent claim 1 above, including, wherein the service processor portion has a user interface and wherein the service processor portion user interface is operable to receive and forward communications between the external management entity and the switch portion (Schwartz, Fig.2, [0018], SMM is the administrator interface where messages are received and transmit from and to external management entity).

28. As to claims 15 Schwartz and Trinon discloses the invention substantially as in parent claim 1 above, including, further comprising a fault management unit (Trinon, [0004], where fault tolerant capabilities means obviously there is a fault management unit is in place); and

wherein the unit is operable to intercept any fault messages generated by the switch portion and the service processor portion and to perform rationalization processing on those messages to determine whether to forward a given message to the external management entity (Schwartz, Fig.2, [0018], where SMM filters all the incoming or out going messages).

29. Claims 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schwartz in view of Ohkubo et al (Patent Number: US 5276683), hereinafter “Ohkubo”.

30. As to claim 14, a combined switch and service processor module of claim 1, a switch including a switch processor (Schwartz, Fig.2, element-222); a service processor including a service processor (Schwartz, Fig.2, element-200 comprises of service processor);

a data interface for communicating with an external management entity (Schwartz, Fig.2, element-218); wherein the switch and service processor are each operable to create a unique identifier using data unique to the respective processor (Schwartz, Fig.2, element-212, [0020], where SMM is available to the booting node and compares the stored UUID list to the nodes specific UUID); and

Schwartz however is silent on disclosing explicitly, wherein the service processor is operable to supply its unique identifier to the switch for use by the switch in identifying itself in precedence to the switch's own unique identifier.

Ohkubo however discloses the concept of aliasing or creating single ID for multiple or plurality of devices, wherein the service processor is operable to supply its unique identifier to the switch for use by the switch in identifying itself in precedence to the switch's own unique identifier (Ohkubo, Abstract, where masking circuit is used to select a plurality of instruments by using a single ID code).

Therefore, it would have been obvious to one of the ordinary skilled in the art at the time the invention was made to combine the teachings of Schwartz with the teachings of Ohkubo in order to provide a multiplex communication system having a received ID comparison system capable of effecting the high-speed data transfer with a small number of hardware.

31. Claims 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schwartz in view of Bottom et al (Patent No.: US 6950895 B2), hereinafter “Bottom”..

32. As to claim 16, Schwartz disclose the invention substantially as in parent claim 1 above. Schwartz however is silent on disclosing explicitly combined switch and service processor module are removably received therein.

Bottom however discloses, combined switch and service processor module are removably received therein (Bottom, Abstract, where server blade removeably connectable to one of the plurality of bladed interfaces is disclosed).

Therefore, it would have been obvious to one of ordinary skilled in the art at the time the invention was made to combine the teaching of Schwartz with the teachings of Bottom in order to provide a The modular server system to support up to four switch blades for complete system network (e.g., Ethernet) switching and N+1 redundancy.

33. As to claim 17, carry similar limitations as claim 16, therefore, is rejected under for same rationale.

34. As to claim 18, in addition to the rejection of claim 16, Bottom additionally discloses, an aperture for removably receiving therein a power supply module (Bottom, Fig.1, Col.3, lines 37-40).

35. As to claim 19, Schwartz, Ohkubo and Bottom discloses the invention substantially as in parent claim 18 above, including, a computer racking system comprising the modular computer system chassis (Bottom, Fig.4).

36. Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schwartz and Trinon as applied to parent claim 5 above in view of Bhusri et al. (Pub. No.: US 2006/0029203 A1), hereinafter “Bhusri”.

37. As to claim 6, Schwartz and Trinon disclose the invention substantially as in parent claim 5 above including, wherein the service processor portion of the combined switch and service processor module having the switch portion configured as configuration master (Schwartz, [0018], where master scalability is disclosed).

Schwartz and Trinon however are silent on disclosing, automatically to cause synchronization of operation parameters of switch portions of further combined switch and service processor modules to the operation parameters of the configuration master switch portion.

Bhusri discloses, automatically to cause synchronization of operation parameters of switch portions of further combined switch and service processor modules to the operation parameters of the configuration master switch portion (Bhusri, [0067], where synchronization program, along with fault management program and automatic service provisioning is disclosed).

Therefore, it would have been obvious to one of ordinary skilled in the art at the time the invention was made to combine the teachings of Schwartz and Trinon with the teachings of Bhusri in order to provide a method of recording information generated by the interconnected network elements in response to a call traversing the network elements.

38. As to claim 7, Schwartz, Trinon and Bhusri discloses the invention substantially as in parent claim 6 above, including, wherein at least one of said further combined switch and service processor modules is located in a modular computer system physically distinct from a modular computer system in which the combined switch and service processor is located (Schwartz, Fig.2, element-220, where remote manager is located physically at different location).

39. As to claim 8, Schwartz, Trinon and Bhusri discloses the invention substantially as in parent claim 6 above, including, read permissions for a data processing entity addressable via the switch portion, write permissions for a data processing entity addressable via the switch and broadcast family groups definitions for data processing entities addressable via the switch portion (Schwartz, [0017], where administrator managing the system via SMM interface means there must have been read, write or access policies are in place and further given any network it is well known in the art to have the secure policy set up).

40. Claims 23-29, 31, 34-37, 39, 44-46 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schwartz as applied to parent claims 1 and 21 above in view of Chu et al. (Pub. No.: US 2005/0097360 A1), hereinafter “Chu”.

41. As to claims 39 and 55, Schwartz and Chu disclose the invention substantially including, a combined switch and service processor module for a modular computer system, comprising:

a switch portion (Schwartz, Fig.2, element-222);

a service processor portion having a user interface (Schwartz, Fig.2, element-200 comprises of service processor);

a physical data interface for communicating with an external management entity (Schwartz, Fig.2, element-218);

Schwartz however is silent on disclosing explicitly, wherein the service processor portion user interface is operable to receive and forward communications between the external management entity and the switch portion.

Chu however discloses wherein the service processor portion user interface is operable to receive and forward communications between the external management entity and the switch portion (Chu, Fig.2, element-222, [0027], where Administrator uses a user interface to communicate with PXE server and DHCP server.

Therefore, it would have been obvious to one of the ordinary skilled in the art at the time the invention was made to combine the teachings of Schwartz with the teachings of Chu in order to provide a management module which oversees communication between server blades and networks of multiple Dynamic Host Configuration Protocol (DHCP) servers and Pre-boot Execution Environment (PXE) boot program servers.

42. As to claim 23, Schwartz disclose the invention substantially as in parent claim 21, including, wherein the switch and service processor portions use a dynamic configuration to obtain the unique address (Schwartz, Abstract, where invention supporting dynamic configuration of a multi-node computer).

Schwartz however is silent on disclosing explicitly, obtaining IP address, using DHCP.

Chu however discloses in using DHCP in core environment of a system where service processors and switching system performs as single entity ([0016], where switching controls the communication between DHCP and server blades).

Therefore, it would have been obvious to one of the ordinary skilled in the art at the time the invention was made to combine the teachings of Schwartz with the teachings of Chu in order to provide a management module which oversees communication between server blades and networks of multiple Dynamic Host Configuration Protocol (DHCP) servers and Pre-boot Execution Environment (PXE) boot program servers.

43. As to claim 24, Schwartz and Chu discloses the invention substantially as in claim 23, including, wherein each of the switch and service processor portions uses an identifier including a part unique to the modular computer system in which the module is received for obtaining the unique address (Chu, [0008], where management program compares the address of responding DHCP with the trusted listed entries of DHCP and PXE boot program servers and it is obvious for switch and processor to perform they have to have unique address even within same domain or subnet mask otherwise there will exists a conflict of address).

44. As to claim 25-27 carry similar limitations as claim 23-24 above and therefore, are rejected under for same rationale.

45. As to claim 28-29, Schwartz and Chu disclose the invention substantially, including, wherein the switch portion and service processor portion are implemented by separate hardware within the module ([0008], where switch and server are assort under same chassis as individual hardware).

46. As to claim 31, Schwartz and Chu disclose the invention substantially, wherein the service processor portion has a user interface (701) and wherein the service processor portion user interface is operable to receive and forward communications between the external management entity and the switch portion (Chu, [0027], where administer uses the Management module interface which is equivalent to user interface in order to determine to select the DHCP from the local secure LAN).

47. As to claims 34 and 35, Schwartz and Chu disclose the invention substantially including, a modular computer system comprising the combined switch and service processor module removably received therein (Chu, Fig.1, Element-102, where blade chassis has rack slots 103a, 103b and 103c).

48. As to claims 36 and 37, Schwartz and Chu disclose the invention substantially including, an aperture for removably receiving therein an information processing cartridge having at least one processor and a memory (Chu, Fig.2, element-204, [0017], where server blade-204 can be added or removed from the chassis),

an aperture for removably receiving therein the combined switch and service processor module (Chu, Fig.2, element-204, [0017], where server blade-204 can be added or removed from the chassis),

an aperture for removably receiving therein a power supply module (Chu, Fig.2, element-212, [0017], where server blade-212 can be added or removed from the chassis).

49. As to claim 44, Schwartz and Chu disclose the invention substantially as in parent claim 39 above, including, wherein the service processor portion user interface is configured to respond as a combined user interface for the service processor portion and switch portion (Chu, Fig.2, element-222, 216 and 202, 210, [0027], where administrator controls the said modules via same interface-222).

50. As to claim 45, Schwartz and Chu disclose the invention substantially as in parent claim 39 above, including, wherein the switch portion and service processor portion are implemented by separate hardware within the module (Chu, Fig.2, where switch is 216 and service processors are 208 within one module-200).

51. As to claim 46, Schwartz and Chu disclose the invention substantially as in parent claim 39 above including, wherein the switch portion and service processor portion are implemented by common hardware within the module (Chu, [0017], where all modules are implemented under one chassis).

52. As to claim 49, is rejected under for same rationale as applied to claim 39 above.

53. Claims 32-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schwartz as applied to parent claims 1 and 21 above in view of Sasagawa (Pub. No.: US 2003/0193944 A1), hereinafter “Sasagawa”.

54. As to claim 33, Schwartz discloses the invention substantially as in parent claim 21 above, including, the combined switch and service processor module (Schwartz, Fig.2, element-200 comprising switching mechanism and service processor).

Schwartz however is silent on disclosing explicitly, a fault management unit.

Sasagawa however, discloses, a fault management unit (Sasagawa, Fig.6, element-30, 34 and 36, [0207], where device comprises of service processing, fault management and switch),

wherein the fault management unit is operable to intercept any fault messages generated by the switch portion and the service processor portion and to perform rationalization processing on those messages to determine whether to forward a given message to the external management entity (Sasagawa, [0153], where fault management determines the topology and proper service for a particular node).

Therefore, it would have been obvious to one of ordinary skilled in the art at the time the invention was made to combine the teachings of Schwartz with the teachings of Sasagawa in order to provide a routing apparatus and method able to achieve a high degree of freedom and flexibility without increasing the cost.

55. As to claim 32 carry similar limitations of claim 33 above and therefore, are rejected under for same rationale.

56. Claims 40-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schwartz and Chu as applied to parent claim 39 above in view of Challener et al. (Patent No.: US 6,754,826 B1), hereinafter “Challener”.

57. As to claims 40 and 41, Schwartz and Chu disclose the invention substantially as in parent claim 39, including, the combined switch and service processor module (Schwartz, Fig.2, element-200).

Schwartz and Chu however are silent on disclosing explicitly, wherein the service processor portion is operable to perform an authentication operation as part of establishing a communications link with the external management entity.

Challener however discloses wherein the service processor portion is operable to perform an authentication operation as part of establishing a communications link with the external management entity (Challener, Col.3, lines 26-33, where authentication process is performed by service processor).

Therefore, it would have been obvious to one of ordinary skilled in the art at the time the invention was made to combine the teachings of Schwartz and Chu with the teachings of Challener in order to provide an access connector which limits access to a network to only authorized client computer systems via service processing unit to reduce overhead processing by knowing the frequent communication address or authorized node addresses.

58. As to claim 42, Schwartz and Chu and disclose, the invention substantially, including, the combined switch and service processor module, wherein the service

processor portion is operable to perform a operation as part of establishing a communications link with the external management entity (Schwartz, Fig.2, element-200 which further comprises of element-222 and 214 and establishes the connection with remote manager-220).

Schwartz and Chu however are silent on disclosing explicitly, a cryptographic operation".

Challener however discloses, "cryptographic operation" (Challener, Col.3, lines 26-33 as explained in claim 40 and 41 above).

59. As to claim 43, carry similar limitations as claim 42 above and therefore is rejected under for same rationale.

60. Claims 47-48 and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schwartz and Chu in view of Ohkubo et al (Patent Number: US 5276683), hereinafter "Ohkubo".

61. As to claim 47, Schwartz and Chu disclose the invention substantially as in parent claim 39 above, including, wherein the switch and service processor are each operable to create a unique identifier using data unique to the respective processor (Schwartz, Fig.2, element-212, [0020], where SMM is available to the booting node and compares the stored UUID list to the nodes specific UUID); and

Schwartz however is silent on disclosing explicitly, wherein the service processor is operable to supply its unique identifier to the switch for use by the switch in identifying itself in precedence to the switch's own unique identifier.

Ohkubo however discloses the concept of aliasing or creating single ID for multiple or plurality of devices, wherein the service processor is operable to supply its unique identifier to the switch for use by the switch in identifying itself in precedence to the switch's own unique identifier (Ohkubo, Abstract, where masking circuit is used to select a plurality of instruments by using a single ID code).

Therefore, it would have been obvious to one of the ordinary skilled in the art at the time the invention was made to combine the teachings of Schwartz and Chu with the teachings of Ohkubo in order to provide a multiplex communication system having a received ID comparison system capable of effecting the high-speed data transfer with a small number of hardware.

62. As to claim 48, Schwartz, Chu and Ohkubo disclose the invention substantially as in parent claim 56 above, including, wherein the service processor portion is operable to operate in master/slave relationship with a service processor portion of a further combined switch and service processor module of the modular computer system (Schwartz, [0017], where service portion and switching portion are communicating to remote manager via network 218); and

wherein the service processor portion is further operable automatically to synchronize management information with the service processor portion of the further combined switch and service processor via the data interface in accordance with the master/slave relationship (Schwartz, [0018], where master slave scalability is disclosed and synchronization is well known in the art).

63. As to claim 50, is rejected under for same rationale as applied to claims 47 and 48 above.

64. Claims 51-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schwartz and Chu in view of Bottom.

65. As to claim 51, Schwartz and Chu disclose the invention substantially as in parent claim 69 above. Schwartz and Chu however are silent on disclosing explicitly combined switch and service processor module are removably received therein.

Bottom however discloses, combined switch and service processor module are removably received therein (Bottom, Abstract, where server blade removeably connectable to one of the plurality of bladed interfaces is disclosed).

Therefore, it would have been obvious to one of ordinary skilled in the art at the time the invention was made to combine the teaching of Schwartz and Chu with the teachings of Bottom in order to provide a The modular server system to support up to four switch blades for complete system network (e.g., Ethernet) switching and N+1 redundancy.

66. As to claim 52, carry similar limitations as claim 51, therefore, is rejected under for same rationale.

67. As to claim 53, in addition to the rejection of claim 51, Bottom additionally discloses, an aperture for removably receiving therein a power supply module (Bottom, Fig.1, Col.3, lines 37-40).

68. As to claim 54, Schwartz, Chu and Bottom discloses the invention substantially as in parent claim 53 above, including, a computer racking system comprising the modular computer system chassis (Bottom, Fig.4).

69. Claims 56, 58-62 and 68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schwartz in view of Ohkubo et al (Patent Number: US 5276683), hereinafter “Ohkubo”.

70. As to claims 56 and 68, a combined switch and service processor module for a modular computer 5 system, comprising:

a switch including a switch processor (Schwartz, Fig.2, element-222);  
a service processor including a service processor (Schwartz, Fig.2, element-200 comprises of service processor);  
a data interface for communicating with an external management entity (Schwartz, Fig.2, element-218);

wherein the switch and service processor are each operable to create a unique identifier using data unique to the respective processor (Schwartz, Fig.2, element-212, [0020], where SMM is available to the booting node and compares the stored UUID list to the nodes specific UUID); and

Schwartz however is silent on disclosing explicitly, wherein the service processor is operable to supply its unique identifier to the switch for use by the switch in identifying itself in precedence to the switch's own unique identifier.

Ohkubo however discloses the concept of aliasing or creating single ID for multiple or plurality of devices, wherein the service processor is operable to supply its unique identifier to the switch for use by the switch in identifying itself in precedence to the switch's own unique identifier (Ohkubo, Abstract, where masking circuit is used to select a plurality of instruments by using a single ID code).

Therefore, it would have been obvious to one of the ordinary skilled in the art at the time the invention was made to combine the teachings of Schwartz with the teachings of Ohkubo in order to provide a multiplex communication system having a received ID comparison system capable of effecting the high-speed data transfer with a small number of hardware.

71. As to claim 58, Schwartz and Ohkubo discloses the invention substantially as in parent claim 56, including, wherein the switch is operable to output its own unique identifier upon receipt of a specific request (Schwartz, Fig.2, element-212, [0020], where SMM is available to the booting node and compares the stored UUID list to the nodes specific UUID, it is obvious that switch will retain its original ID).

72. As to claim 59, Schwartz and Ohkubo disclose the invention substantially as in parent claim 56, including, wherein the unique identifier created by the service processor constitutes an identifier for the module (Ohkubo, Abstract, where masking circuit is used to select a plurality of instruments by using a single ID code, obviously the concept of aliasing it to create a single identifier for plurality of devices).

73. As to claim 60, Schwartz and Ohkubo disclose the invention substantially as in parent claim 56, including, wherein the service processor portion has a user interface and wherein the service processor portion user interface is operable to receive and forward communications between the external management entity and the switch portion (Schwartz, Fig.2, element-200, [0016], where interface 200 is connected with external entity remote manager-220).

74. As to claim 61, Schwartz and Ohkubo disclose the invention substantially as in parent claim 56 above, including, wherein the service processor portion is operable to operate in master/slave relationship with a service processor portion of a further combined switch and service processor module of the modular computer system (Schwartz, [0017], where service portion and switching portion are communicating to remote manager via network 218); and

wherein the service processor portion is further operable automatically to synchronize management information with the service processor portion of the further combined switch and service processor via the data interface in accordance with the master/slave relationship (Schwartz, [0018], where master slave scalability is disclosed and synchronization is well known in the art).

75. As to claim 62. The combined switch and service processor module of claim 56, wherein the switch and service processor portions are each operable to communicate with the external management entity to obtain a unique address within a computing environment into which the modular computer system is connected (Schwartz, [0018],

where SMM communicates with remote manager 220 and addressed can be exchanged).

76. Claim 63 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schwartz and Ohkubo in view of Anderson et al (Patent No.: US 5940491), hereinafter “Anderson”.

77. As to claim 63, Schwartz and Ohkubo disclose the invention substantially as in parent claim 56 above, including, wherein the fault management unit is operable to intercept any fault messages generated by the switch portion and the service processor portion and to perform rationalization processing on those messages to determine whether to forward a given message to the external management entity (Schwartz, [0018], where switch and service processor portions are disclosed and SMM is provided to analyze data which is merely a software loaded with policies and can be tailored according to user preference),

Schwartz and Ohkubo however are silent on disclosing, a fault management unit. Anderson however discloses a fault management unit (Anderson, Col.4, lines 27-35, where fault management system is disclosed).

Therefore it would have been obvious to one of the ordinary skilled in the art at the time the invention was made to combine the teachings of Schwartz and Ohkubo with the teachings of Anderson in order to provide a method wherein the network is broken down into a plurality of switching fabric systems (switches), each with fabric control processors for performing basic functions (establishing connections between

terminals of the switch, connecting announcements to a terminal of the switch, and, in applicants' specific embodiment, performing a busy test and a hunt for an available trunk in a trunk group).

78. Claims 57 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schwartz and Ohkubo in view of Mori et al (Patent No.: US 6891214 B2), hereinafter “Mori”.

79. As to claim 57, Schwartz and Ohkubo disclose the invention substantially as in parent claim 56, however Schwartz and Ohkubo are silent on disclosing, wherein the data unique to the respective processor comprises at least one of production data, production time and serial number.

Mori however discloses, wherein the data unique to the respective processor comprises at least one of production data, production time and serial number (Mori, Claim 12, where in the analogues art of switching element storing the manufacturing data and time)

Therefore, it would have been obvious to one of ordinary skilled in the art at the time the invention was made to combine the teachings of Schwartz and Ohkubo with the teachings of Mori in order to provide a semiconductor power module with a function of storing use history and a function of displaying at least part of the use history or a message indicating the use history in excess of some conditions.

80. Claims 64-67 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schwartz and Ohkubo in view of Bottom et al (Patent No.: US 6950895 B2), hereinafter “Bottom”.

81. As to claim 64, Schwartz and Ohkubo disclose the invention substantially as in parent claim 56. Schwartz and Ohkubo however are silent on disclosing explicitly combined switch and service processor module are removably received therein.

Bottom however discloses, combined switch and service processor module are removably received therein (Bottom, Abstract, where server blade removeably connectable to one of the plurality of bladed interfaces is disclosed).

Therefore, it would have been obvious to one of ordinary skilled in the art at the time the invention was made to combine the teaching of Schwartz and Ohkubo with the teachings of Bottom in order to provide a The modular server system to support up to four switch blades for complete system network (e.g., Ethernet) switching and N+1 redundancy.

82. As to claim 65, carry similar limitations as claim 64, therefore, is rejected under for same rationale.

83. As to claim 66, in addition to the rejection of claim 64, Bottom additionally discloses, an aperture for removably receiving therein a power supply module (Bottom, Fig.1, Col.3, lines 37-40).

84. As to claim 67, Schwartz, Ohkubo and Bottom discloses the invention substantially as in parent claim 66 above, including, a computer racking system comprising the modular computer system chassis (Bottom, Fig.4).

85. Claims 69-73, 76-80 and 86 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schwartz in view of Anderson et al (Patent No.: US 5940491), hereinafter “Anderson”.

86. As to claim 69 and 86, Schwartz discloses a combined switch and service processor module for a modular computer system, comprising:

a switch portion (Fig.2, element-222);

a service processor portion (Fig.2, element-214);

a data interface for communicating with an external management entity (Fig.2, element-226 is connecting the two entity 200 and 202 for data communication between the entities);

wherein operable to intercept any fault messages generated by the switch portion and the service processor portion and to perform rationalization processing on those messages to determine whether to forward a given message to the external management entity (Schwartz, [0018], where switch and service processor portions are disclosed and SMM is provided to analyze data which is merely a software loaded with policies and can be tailored according to user preference).

Schwartz and Ohkubo however are silent on disclosing, a fault management unit.

Anderson however discloses a fault management unit (Anderson, Col.4, lines 27-35, where fault management system is disclosed).

Therefore it would have been obvious to one of the ordinary skilled in the art at the time the invention was made to combine the teachings of Schwartz and Ohkubo with the teachings of Anderson in order to provide a method wherein the network is broken down into a plurality of switching fabric systems (switches), each with fabric control processors for performing basic functions (establishing connections between terminals of the switch, connecting announcements to a terminal of the switch, and, in applicants' specific embodiment, performing a busy test and a hunt for an available trunk in a trunk group).

87. As to claim 70, is rejected under for same rationale as claim 69 above.

88. As to claim 71, The combined switch and service processor module of claim 69, wherein the fault management unit stores details of fault messages received irrespective of whether the message is forwarded to the external management entity (Anderson, Col.4, lines 27-40, where all fault related messages are processes and maintained in switches).

89. As to claim 72, Schwartz and Anderson disclose the invention substantially as in parent claim 69 above, including, wherein the details of the fault messages includes data describing any action taken by the originator of the fault message in response to detection of the fault (Anderson, Fig.1, Col.4, lines 27-30 and lines 35-40).

90. As to claim 73, is rejected under for same rationale as claim 72 above.

91. As to claim 76, Schwartz, Anderson disclose, wherein the switch portion and service processor portion are implemented by separate hardware within the module (Schwartz, Fig.2, element-200, where switching element-222 and service processor 214 are separate hardware).

92. As to claim 77, is rejected under for same rationale as claim 76 above and further to modify the hardware arrangement is just a design choice and obvious variation.

93. Claims 78 and 79 are rejected under same rationale as parent claim 69 above.

94. As to claim 80, Schwartz and Anderson disclose the invention substantially as in parent claim 69 above including, wherein the service processor portion has a user interface and wherein the service processor portion user interface is operable to receive and forward communications between the external management entity and the switch portion (Schwartz, Fig.2, element-200, where SMM is the interface to control messages).

95. Claims 74-75 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schwartz and Anderson in view of Bhusri et al (Pub. No.: US 2006/0029203 A1), hereinafter “Bhusri”.

96. As to claim 74, Schwartz and Anderson disclose the invention substantially including a fault management system (Anderson, Col.4, lines 27-35).

Schwartz and Anderson however are silent on disclosing, wherein the rationalization processing comprises analyzing a received fault message and comparing it to previously received fault messages to determine whether the newly received fault message relates to an already reported fault.

Bhusri however discloses, wherein the rationalization processing comprises analyzing a received fault message and comparing it to previously received fault messages to determine whether the newly received fault message relates to an already reported fault (Bhusri, [0027-0028], where comparison and rationalization is performed),

Therefore it would have been obvious to one of the ordinary skilled in the art at the time the invention was made to combine the teachings of Schwartz and Anderson with the teachings of Bhusri in order to provide a system and method for call establishment and routing, fault management, call details recording used to compile customer bills, fraud detection and control, new services provisioning, post-dialing delay measurement and time synchronization.

97. As to claim 75, is rejected under for same rationale as applied to claim 74 above.

98. Claims 81 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schwartz and Anderson in view of Ohkubo.

99. As to claim 81, Schwartz and Anderson disclose the invention substantially as in parent claim 69 above, including, wherein the switch and service processor elements are each operable to create a unique identifier using data unique to the respective processor (Schwartz, Fig.2, element-212, [0020], where SMM is available to the booting

node and compares the stored UUID list to the nodes specific UUID); and Schwartz however is silent on disclosing explicitly, wherein the service processor is operable to supply its unique identifier to the switch for use by the switch in identifying itself in precedence to the switch's own unique identifier.

Ohkubo however discloses the concept of aliasing or creating single ID for multiple or plurality of devices, wherein the service processor is operable to supply its unique identifier to the switch for use by the switch in identifying itself in precedence to the switch's own unique identifier (Ohkubo, Abstract, where masking circuit is used to select a plurality of instruments by using a single ID code).

Therefore, it would have been obvious to one of the ordinary skilled in the art at the time the invention was made to combine the teachings of Schwartz with the teachings of Ohkubo in order to provide a multiplex communication system having a received ID comparison system capable of effecting the high-speed data transfer with a small number of hardware.

100. Claims 82-85 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schwartz and Anderson in view of Bottom.

101. As to claim 82, Schwartz and Anderson disclose the invention substantially as in parent claim 69 above. Schwartz and Ohkubo however are silent on disclosing explicitly combined switch and service processor module are removably received therein.

Bottom however discloses, combined switch and service processor module are removably received therein (Bottom, Abstract, where server blade removeably connectable to one of the plurality of bladed interfaces is disclosed).

Therefore, it would have been obvious to one of ordinary skilled in the art at the time the invention was made to combine the teaching of Schwartz and Ohkubo with the teachings of Bottom in order to provide a The modular server system to support up to four switch blades for complete system network (e.g., Ethernet) switching and N+1 redundancy.

102. As to claim 83, carry similar limitations as claim 82, therefore, is rejected under for same rationale.

103. As to claim 84, in addition to the rejection of claim 82, Bottom additionally discloses, an aperture for removably receiving therein a power supply module (Bottom, Fig.1, Col.3, lines 37-40).

104. As to claim 85, Schwartz, Ohkubo and Bottom discloses the invention substantially as in parent claim 84 above, including, a computer racking system comprising the modular computer system chassis (Bottom, Fig.4).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TAUQIR HUSSAIN whose telephone number is (571)270-1247. The examiner can normally be reached on 7:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on 571 272 3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/T. H. /  
Examiner, Art Unit 2152

/Bunjob Jaroenchonwanit/  
Supervisory Patent Examiner, Art Unit 2152